

Search Plan and Results

Question

What is the relationship between alcohol intake and unintentional injury? (DGAC 2010)

Date Searched

01/13/10

Inclusion Criteria

- January 1, 2004 to January 13, 2010
- Human subjects
- English language
- International
- *Sample size:* Minimum of 10 subjects per study arm; preference for larger sizes, if available
- *Dropout rate:* Less than 20%; preference for smaller dropout rates
- *Ages:* Adults of legal drinking age (21 years and older)
- *Populations:* Healthy, those with elevated chronic disease risk, those diagnosed with the highly prevalent chronic diseases (CHD/CVD, hypertension, type 2 diabetes, osteoporosis, osteopenia and obesity) and those with breast cancer, colon cancer or prostate cancer.

Exclusion Criteria

- Medical treatment or therapy
- Diseased subjects (exceptions noted)
- Malnourished or third-world populations or disease incidence not relative to US population (e.g., malaria)
- Animal studies
- In vitro studies
- Articles not peer reviewed (websites, magazine articles, Federal reports, etc.).

Search Terms: Search Vocabulary

(ethanol OR alcoholic OR alcohol's OR alcohol) AND ("unintentional injuries" OR "unintentional falls")
("Wounds and Injuries"[Mesh] OR "Accidents"[Mesh:NoExp] OR "Accidental Falls"[mh] OR "Accidents, Home"[mh]) AND ("Alcohol Drinking/adverse effects"[Mesh]
("Accidents"[majr:NoExp] OR "Accidental Falls"[majr] OR "Accidents, Home"[majr]) AND "Alcohol Drinking"[majr])
("Ethanol"[Mesh] OR "Alcoholic Beverages"[Mesh]) AND ("Accidents"[majr:NoExp] OR "Accidental Falls"[majr] OR "Accidents, Home"[majr])

("Ethanol"[majr] OR "Alcohol Drinking"[majr] OR "Alcoholic Beverages"[majr]) AND (drowning[mh] OR Accidents, Occupational"[majr])

Electronic Databases

Total hits from all electronic database searches: 372

Total articles identified to review from electronic databases: 30

Articles Identified Via Handsearch or Other Means

Summary of Articles Identified to Review

Number of Primary Articles Identified: 19

Number of Review Articles Identified: 2

Total Number of Articles Identified: 21

Number of Articles Reviewed but Excluded: 9

List of Articles Included for Evidence Analysis

Reviews/Meta-analysis

Driscoll TR, Harrison JA, Steenkamp M. [Review of the role of alcohol in drowning associated with recreational aquatic activity.](#) *Inj Prev.* 2004 Apr; 10(2): 107-113. Review. PMID: 15066977; PMCID: PMC1730083.

González-Wilhelm L. [Prevalence of alcohol and illicit drugs in blood specimens from drivers involved in traffic law offenses. Systematic review of cross-sectional studies.](#) *Traffic Inj Prev.* 2007 Jun; 8(2): 189-198. Review. PMID: 17497523.

Primary Research

Bedford D, O'Farrell A, Howell F. [Blood alcohol levels in persons who died from accidents and suicide.](#) *Ir Med J.* 2006 Mar; 99(3): 80-83. PMID: 16700260.

Cherpitel CJ. [Alcohol and injuries: A review of international emergency room studies since 1995.](#) *Drug Alcohol Rev.* 2007 Mar; 26(2): 201-214. Review. PMID: 17364856.

Driscoll TR, Harrison JE, Steenkamp M. [Alcohol and drowning in Australia.](#) *Inj Control Saf Promot.* 2004 Sep; 11(3): 175-181. PMID: 15764104.

Hall AJ, Bixler D, Helmkamp JC, Kraner JC, Kaplan JA. [Fatal all-terrain vehicle crashes: Injury types and alcohol use](#). *Am J Prev Med*. 2009 Apr; 36(4): 311-316. Epub 2009 Feb 7. PMID: 19201149.

Hingson RW, Edwards EM, Heeren T, Rosenbloom D. [Age of drinking onset and injuries, motor vehicle crashes, and physical fights after drinking and when not drinking](#). *Alcohol Clin Exp Res*. 2009 May; 33(5): 783-790. Epub 2009 Mar 6. PMID: 19298330.

Hingson RW, Zha W. [Age of drinking onset, alcohol use disorders, frequent heavy drinking, and unintentionally injuring oneself and others after drinking](#). *Pediatrics*. 2009 Jun; 123(6): 1, 477-1, 484. PMID: 19482757.

Johnston JJ, McGovern SJ. [Alcohol-related falls: An interesting pattern of injuries](#). *Emerg Med J*. 2004 Mar; 21(2): 185-188. PMID: 14988344; PMCID: PMC1726307.

Kool B, Ameratunga S, Jackson R. [The role of alcohol in unintentional falls among young and middle-aged adults: A systematic review of epidemiological studies](#). *Inj Prev*. 2009 Oct; 15(5): 341-347. PMID: 19805604.

Kool B, Ameratunga S, Robinson E, Crengle S, Jackson R. [The contribution of alcohol to falls at home among working-aged adults](#). *Alcohol*. 2008 Aug; 42(5): 383-388. Epub 2008 Jun 17. PMID: 18562152.

Kurzthaler I, Wambacher M, Golser K, Sperner G, Sperner-Unterweger B, Haidekker A, Pavlic M, Kemmler G, Fleischhacker WW. [Alcohol and benzodiazepines in falls: An epidemiological view](#). *Drug Alcohol Depend*. 2005 Aug 1; 79(2): 225-230. PMID: 16002031.

Levy DT, Mallonee S, Miller TR, Smith GS, Spicer RS, Romano EO, Fisher DA. [Alcohol involvement in burn, submersion, spinal cord, and brain injuries](#). *Med Sci Monit*. 2004 Jan; 10(1): CR17-CR24. PMID: 14704631.

McDonald AJ 3rd, Wang N, Camargo CA Jr. [US emergency department visits for alcohol-related diseases and injuries between 1992 and 2000](#). *Arch Intern Med*. 2004 Mar 8; 164(5): 531-537. PMID: 15006830.

McLean R, Connor J. [Alcohol and injury: A survey in primary care settings](#). *N Z Med J*. 2009 Sep 25; 122(1, 303): 21-28. PMID: 19851417.

Mukamal KJ, Mittleman MA, Longstreth WT Jr, Newman AB, Fried LP, Siscovick DS. [Self-reported alcohol consumption and falls in older adults: Cross-sectional and longitudinal analyses of the cardiovascular health study](#). *J Am Geriatr Soc*. 2004 Jul; 52(7): 1, 174-1, 179. PMID: 15209658.

Rehm J, Patra J, Popova S. [Alcohol-attributable mortality and potential years of life lost in Canada 2001: Implications for prevention and policy](#). *Addiction*. 2006 Mar; 101(3): 373-384. PMID: 16499510.

Sorock GS, Chen LH, Gonzalgo SR, Baker SP. [Alcohol-drinking history and fatal injury in older adults](#). *Alcohol*. 2006 Nov; 40(3): 193-199. PMID: 17418699.

Watt K, Purdie DM, Roche AM, McClure R. [Acute alcohol consumption and mechanism of injury](#). *J Stud Alcohol*. 2006 Jan; 67(1): 14-21. PMID: 16536125.

Watt K, Purdie DM, Roche AM, McClure RJ. [Risk of injury from acute alcohol consumption and the influence of confounders](#). *Addiction*. 2004 Oct; 99(10): 1, 262-1, 273. Erratum in:

Addiction. 2004 Oct; 99(10): 1, 366. PMID: 15369564.

Yoonhee C, Jung K, Eo E, Lee D, Kim J, Shin D, Kim S, Lee M. [The relationship between alcohol consumption and injury in ED trauma patients](#). *Am J Emerg Med*. 2009 Oct; 27(8): 956-960. PMID: 19857414.

List of Excluded Articles with Reason

Article	Reason for Exclusion
Chen LH, Baker SP, Li G. Drinking history and risk of fatal injury: Comparison among specific injury causes . <i>Accid Anal Prev</i> . 2005 Mar; 37(2): 245-251. PMID: 15667810.	Study focused on fatal injury-mortality.
Elder RW, Shults RA, Swahn MH, Strife BJ, Ryan GW. Alcohol-related emergency department visits among people ages 13 to 25 years . <i>J Stud Alcohol</i> . 2004 May; 65(3): 297-300. PMID: 15222585.	Study looked at the prevalence of alcohol-related emergency department visits; no outcome measures were performed.
Fierro I, Yáñez JL, Alvarez FJ. Differences in alcohol-related mortality between foreign-born and native-born Spaniards . <i>Int J Drug Policy</i> . 2009 Sep 24. [Epub ahead of print] PubMed PMID: 19782553.	Study outcomes are related to mortality of foreign-born vs. native-born Spaniards.
Hosking J, Ameratunga S, Bullen C, Civil I, Ng A, Rodgers A. Screening and intervention for alcohol problems among patients admitted following unintentional injury: A missed opportunity? <i>N Z Med J</i> . 2007 Feb 16; 120(1, 249): U2, 417. PMID: 17308554.	Outcome focused on alcohol interventions and not incidence of unintentional injury.
Matzopoulos R, Peden M, Bradshaw D, Jordaan E. Alcohol as a risk factor for unintentional rail injury fatalities during daylight hours . <i>Int J Inj Contr Saf Promot</i> . 2006 Jun; 13(2): 81-88. PMID: 16707343.	Outcome focused on railway injuries based on day of week and time of day.
Miller JR, Pikora TJ. Alcohol consumption among recreational boaters: Factors for intervention . <i>Accid Anal Prev</i> . 2008 Mar; 40(2): 496-501. Epub 2007 Aug 31. PMID: 18329399.	Outcome explored educational intervention and not incidence of unintentional injury.
Moriya F, Hashimoto Y. Postmortem production of ethanol and n-propanol in the brain of drowned persons . <i>Am J Forensic Med Pathol</i> . 2004 Jun; 25(2): 131-133. PMID: 15166764.	Study looked at post-mortem production of ethanol.

Norström T, Ramstedt M. <u>Mortality and population drinking: a review of the literature</u> . <i>Drug Alcohol Rev.</i> 2005 Nov; 24(6): 537-547. Review. PMID: 16361210.	Narrative review.
Sindelar HA, Barnett NP, Spirito A. <u>Adolescent alcohol use and injury. A summary and critical review of the literature</u> . <i>Minerva Pediatr.</i> 2004 Jun; 56(3): 291-309. Review. PMID: 15252378.	Subjects aged 13 to 19.